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ABSTRACT

A project documented and addressed the literacy needs of families of deaf parents with young hearing children (DP/HC). The project combined family literacy training and materials development with exploration of research questions relating to interaction patterns and verbal development. Six half-day literacy training sessions were held for 11 DP/HC families in Allegheny County, Pennsylvania, who were recruited through contacts with various associations, schools for the deaf, and local hospitals. The sessions focused on the topics of behavior management, language and speech development, public school law, emergency pointers, and nutrition. They also included panel discussions with deaf parents of older hearing children and with hearing children of deaf parents. Results of the project included the following: the participating DP/HC families received information and improved their literacy skills; a set of seven instructional brochures were produced for nationwide distribution; a family literacy library with materials specifically for deaf parents of hearing children was created; and the English language development of hearing children of deaf parents was documented, showing normal language development in most cases. (Contains 31 references.) (KC)

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LITERACY INITIATIVES
FOR
FAMILIES OF DEAF PARENTS WITH HEARING CHILDREN

ED353391

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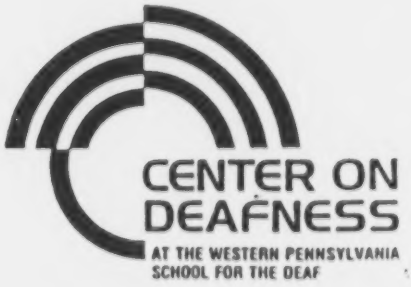
Literacy Initiatives for Families of Deaf Parents with Hearing Children



ABSTRACT

This project was initiated to document and address the literacy needs of families of deaf parents with young hearing children (DP/HC). The objectives were: (1) to identify literacy needs of DP/HC families and recruit project participants in Allegheny County; (2) to provide family literacy workshops, to meet these needs; (3) to collect/develop materials especially for DP/HC families; (4) to collect communication data re: members of DP/HC families; and (5) to disseminate brochures produced and share information with other professionals.

The project combined family literacy training and materials development with exploration of research questions relating to interaction patterns and verbal development. It provided 6 half-day literacy training sessions for 11 DP/HC families (17 adults and 12 children), focusing upon the topics of: behavior management, language and speech development, public school law, emergency pointers and nutrition; plus panel discussions with deaf parents of older hearing children and with hearing children of deaf parents. The end products were: (1) increased information and improved family literacy skills among participating DP/HC families; (2) a set of 7 instructional, illustrated brochures--TIPS: Toward Improved Parenting Skills -- for DP/HC families nationwide; (3) a Family Literacy library with materials specifically for deaf parents of hearing children; and (4) documentation on the English language development of hearing children of deaf parents. The target audience for this report includes educators and health professionals working with these families.

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Introduction

INTRODUCTION

In a unique focus for literacy education, this project targeted families in which deaf parents are rearing normally hearing infants and toddlers. Addressing priority #F-1: Curricula, Instructional Techniques, and Materials for Family Literacy, it linked both service and research goals relating to these at-risk families. It combined specialized literacy training and materials production with an evaluation of verbal development for hearing children of deaf parents and of interaction patterns within these families.

Background and Rationale

The genesis for this project was a recent and simultaneous series of related requests for Center On Deafness services from very different sources -- requests from local hospitals and clinics for help in communicating child-care procedures to deaf parents of hearing babies, and requests from deaf parents themselves for information on how to cope with the behavioral, educational, speech and language needs of their young hearing children. Comments from both these groups pointed to very grave and frequently unaddressed problems for this small and unrecognized segment of the population -- families of deaf parents with hearing children (DP/HC).

For these special DP/HC families, two very critical communication problems can lead to major difficulties in the child-rearing process: (1) the literacy deficits of many deaf adults can restrict access to important information on parenting skills and child care; and (2) the most comfortable and most accessible communication modes of parent and child (i.e., Sign vs. speech; visual vs.

auditory) will frequently differ, causing potential conflicts and misunderstandings.

According to nationwide data, at least 50% of deaf adults have reading comprehension levels which are only a 4th grade equivalent or below (Allen, 1986; Trybus et al, 1977). This is especially true for those who are both severely to profoundly deaf (unable to hear and understand speech) and who became deaf "prelingually"--prior to 3 years of age, before they had learned the English language. The major reason for this literacy deficit is that people born deaf miss large and significant chunks of the spoken language through which most people interact and which also is the basis for written language and the whole process of reading English. These difficulties, both in reading and in easy communication with others, can create problems for deaf parents as they try to gather information on nutrition, safety, child management, and health care for their young children, hearing or deaf.

Of equal importance in the child-rearing process are the potential conflicts and tensions which can be created by communication differences between parent and child. Especially for adults who are profoundly and prelingually deaf, the major input mode will be visual -- including Sign (American Sign Language and/or a variant of Signed English), speech-reading, reading, and demonstration. The major expressive mode may be Sign or speech, reinforced by writing, gesture, and demonstration. For the normally hearing infant, on the other hand, the primary communication mode is usually auditory, and expression will be through vocalization and speech. Normally hearing babies can and do learn Sign, especially if this

is the language of their primary caregiver (Prinz & Prinz, 1979). However, the potential for miscommunication and lack of understanding between deaf parent and hearing child is exacerbated in a cross-modality, even cross-cultural environment.

Potential problems cited both in the references and in personal contacts are presented in more detail within Chapter 1, but include: (1) **child-care problems**, caused by literacy deficits which, in turn, can lead to lack of critical information; (2) **child management problems**, caused both by lack of information and by communication conflicts and misunderstandings within the family; (3) **inadequate auditory environment**, resulting in delayed speech and listening skills for the hearing child; (4) **inadequate English literacy models** for the hearing children; and (5) **insufficient access** to knowledgeable health-care and social service professionals, because of limited information on deafness among these providers. Because of these potential problems, many deaf parents need special information, services, and opportunities for sharing, in order to cope effectively with their children who have normal hearing. This service was a critical component of the present project.

In addition to the service needs of DP/HC families, there is also a clear need for expanded information and data on the verbal development of hearing children within these families, and of the interaction patterns between deaf parents and their hearing children. As discussed in Chapter 1, existing documentation of these communication patterns is very sparse, and reports on the children's verbal development or delay, if any, are contradictory . The

current project was therefore designed to provide additional data in this area.

Time Frame

The basic time frame for this project was 6 1/2 months -- from project approval in December, 1991 through June, 1992. The Family Literacy workshops and the evaluation sessions were conducted for 3 to 4 full hours on each of 6 Saturday mornings -- February 29, March 14, March 21, March 28, April 11, and April 25. Materials development and production were in process during the entire project period.

Key Personnel

The project was conducted at the Center On Deafness: Western Pennsylvania School for the Deaf (WPSD Center), administered by Dr. William N. Craig, the Executive Director. Dr. Helen B. Craig, Research Director, served as project coordinator/evaluator and supervised the production of project materials -- in cooperation with Rosemary Garrity, Director of Center Programs, who also served as liaison between this and related Center Programs. Monica Anthony, Adult Literacy Coordinator, organized and conducted the family literacy workshops and wrote the 7 TIPS pamphlets which reinforced the workshop information. Patricia Karn, Computer Specialist, served as production editor for the TIPS pamphlets, formatting them on the Macintosh computer and adding appropriate illustrations.

Consultants from the medical and university communities assisted both in the workshop presentations and in child evalua-

tion, along with a team of additional part-time personnel from the WPSD Center, who provided extra support for the project. Presentations were made by: Dr. Charlotte Johnson, Communication/Language Specialist, Children's Hospital of Pittsburgh; Dr. M. Virginia Swisher, Director, Program in Education of the Deaf, University of Pittsburgh; Dr. Richard Solomon, Staff Pediatrician, Allegheny General Hospital; Dr. Richard Brandt, Executive Assistant to the Deputy Superintendent, Pittsburgh Public Schools; Diana Andromalos-Dale, American Red Cross; Barbara Horne, Dietician, Children's Hospital of Pittsburgh; and by two panels of adults with personal experience in deafness -- (1) CODA (Hearing Children of Deaf Adults) and (2) DAOHC (Deaf Adults with Older Hearing Children). Stephen and Nancy Rute, who themselves are deaf parents with hearing children, helped to recruit participants and to encourage discussion. Child evaluations were conducted by a team of consultants, including Dr. Charlotte Johnson; Mary Ann Stefko, Communications Specialist at WPSD; and Nancy DeWitt, ASL Sign Language evaluator/instructor. Cynthia Douglass, Research Assistant, coordinated children's activities and supervised a corps of babysitters for the hearing children of the deaf adults attending the workshops.

All individuals working on and consultant to this project were highly qualified for the positions described. Qualifications are presented in their vitae. (See Appendix.)

Audience for this Report

This report has been prepared for personnel who work with deaf or hard-of-hearing adults, especially those adults who have child-

ren with normal hearing. The information is also of value for persons who may teach or work with the children of deaf adults, including those in the health professions who provide medical services for these children. Further, the evaluation results are of value to professionals in child language and child development, as these data can be added to existing information on this population.

Available Resources on Adult Basic and Literacy Education

Information on adult basic and literacy education can be obtained by writing:

Division of Adult Basic and Literacy Education Programs
333 Market St.
Harrisburg, PA 17126-0333
Telephone: 717-787-5532

Permanent copies of this report and copies of the TIPS pamphlets for deaf parents of hearing children are available for the next five years through:

AdvancE
PDE Resource Center
333 Market St.
Harrisburg, PA 17126-0333
Telephone: In PA -- 1-800-992-2283
Out of State -- 717-783-9192.

Chapter I
Statement of Problem

I. STATEMENT OF PROBLEM

Purpose

The purpose of this project was both to identify and document existing service needs among families of deaf parents with hearing children and to provide these parents with more of the information and support they need in order to enhance familial interactions and to improve their parenting skills.

The plight, as well as the pride, of hearing children growing up with profoundly deaf parents, has been chronicled in recent memoirs (Sidransky, 1990; Walker, 1986, Day, 1975) and biographical vignettes (Walter, 1990), but few and sometimes contradictory articles are available in the research literature (e.g. Walter, 1990; Jones et al., 1989; Rea et al., 1988; Griffith, 1985; Schiff-Myers, 1982; Schiff, 1979; Schiff & Ventry, 1976). Especially critical for literacy development are the deficits which have been reported re: the extent, quality, and reinforcement of vocalization and English language use within these families. Equally crucial, from the standpoint of future education and literacy, are the potential behavioral problems caused by cross-modality communication and the resulting misunderstandings and conflicts.

Potential Problems

A potentially damaging composite of communication-related problems can create clear but frequently unaddressed literacy needs for these DP/HC families. Included in this composite are:

a. **Inadequate Auditory and Literacy Learning Environment**. Because their own auditory input is so fragmentary, many deaf

parents will focus on and reinforce visual rather than spoken/auditory messages. If the parents were born deaf, they may rely primarily on American Sign Language (ASL), which is a language in its own right -- but which is visual, rather than auditory and which is quite different grammatically from the English language.

In some cases, deaf parents may not use speech at all, because they do not want to sound "funny". Those who do use spoken language with their young children may be modelling deviant speech and grammar. Their speech may, in fact, be unintelligible, or barely so. Existing research on this matter indicates that children can understand the speech of their parents, no matter how poor it may be (Mayberry, 1976), and that they will develop speech within the normal time-frame if the mother (or primary caregiver) uses speech (Schiff, 1979). What is critical for the children's own speech development is not so much the accuracy of the model, but the fact that the primary caregiver does use speech to communicate with them (Schiff-Myers, 1982). It has also been found that simply being exposed to language (peripherally) is not sufficient; the child must be directly involved in the conversation (Sachs & Devin, 1976). The language must be meaningful to him. This is information to which most deaf adults have very limited access -- but it can be vital for their children's speech and language development.

Further, some deaf parents, because of their own reading problems, may not provide sufficient reading experience for their children, deaf or hearing. They may not read books to Baby, either orally or signed; and they may not read much themselves, so that Baby will neither observe a "reading model" nor have abundant print

materials to explore. They also may be unaware of ways to provide their hearing children with alternate language/auditory models -- even of the peripheral type -- e.g., assuring that the TV sound is turned on, and at an appropriate level. Without encouragement from the parents, the children -- even though they can hear -- may not develop effective listening and reading strategies. All these pieces of information, in fact, are vital for deaf parents to know, so that they can ensure more effective speech and language development for their hearing children.

The most comprehensive study to date, evaluating 52 hearing children with deaf parents, found fewer than half to be developing normal speech and language patterns; and these problems persisted well into the school-age years (Schiff & Ventry, 1976). In this study, 12% of the children had previously undiagnosed hearing loss and another 12% had physical factors other than hearing loss which could have contributed to the delay. However, 11 children (21% of the total sample) had speech or language problems with no known contributory factors other than the deafness of their parent. Ten of these had language problems -- 8 also with speech problems, and 1 had speech problems only. All those with language problems had deficits in comprehension and vocabulary. The speech problems included: articulation (for 6), stress and intonation (for 8), and fluency (for 3). Six of these children were in school and were reported to have learning difficulties. (The age range for the total sample was from 6 months to 12 years.)

On the other hand, a later study by the same author (Schiff, 1979; Schiff-Myers, 1982) found the language development of five 2-

year old hearing children of deaf parents to be quite similar to that of their peers with hearing parents -- acquiring the same categories of semantic and syntactic relations and producing as many syntactic utterance types. These results were interpreted as indicating that hearing children of deaf parents may not need to hear much "normal" language during this early, sensorimotor period -- at least in order to encode the cognitive relationships learned in this period. Rather, they need only to be in contact with hearing speakers for "a minimum of five to 10 hours weekly and watch some television". Further, "all that they need from their mothers is some telegraphic speech which is ordered into subject-verb-object relationships and is relative to context" (1979, p.600).

Another study (Rea, Bonvillian, and Richards, 1988) reported that deaf mothers and hearing mothers of hearing infants interact in a very similar way with their children, except that deaf mothers vocalized considerably less frequently and for shorter periods of time than did hearing mothers. Although the hearing infants of these deaf mothers vocalized as often and for the same duration as those of hearing parents in the first two age periods evaluated (9-10 months and 12-13 months), their vocalizations had decreased significantly by age 16-17 months, compared to their peers with hearing parents. The further consequences of this drop, attributed to the lack of parental and self feedback, were not documented.

In a longitudinal case-study of question-form acquisition in both spoken English and ASL by two hearing children of deaf parents, Jones and Quigley (1979) found that the two languages were developing in parallel fashion for both children. (One child was

observed from age 11 months to 3 years; the other from age 3 1/2 to 5 1/2 years.) Despite the fact that the children's environments were "biased against vocal speech production and involved much exposure to atypical English structure" (p. 205), their general language development, at least for question formation, was normal or above, when compared to normative data by Klima and Bellugi (1966). A case study of a hearing child (from age 7 months to 21 months) who had a deaf mother and hearing father (Prinz & Prinz, 1979; 1981) also indicated that linguistic development in English and ASL could proceed successfully and seemed to parallel that of hearing children learning two or more spoken languages. (In this study, however, one parent had normal hearing and both were university professors.)

In another case study, Sachs and Johnson (1976) reported delayed language acquisition (both in sign and speech) for two hearing siblings whose mother neither signed nor spoke to or with them -- even though the parents did sign with each other in presence of the children. Cicourel and Boese (1972) found delayed speech in a hearing child of deaf parents (in the United States) whose mother signed in Japanese and who was just learning ASL but who did not speak English. Also, Todd (1975) reported on the deviant syntactic rules used in the spoken language of a hearing child whose parents signed to him in ASL but who used no speech. In this case, some of the rules resembled ASL in structure; others resembled neither ASL nor English.

The seemingly conflicting results reported above may in fact be due both to the relatively limited (and mostly case-study) data

available on hearing children of deaf parents -- particularly in the early language-learning stages -- and to the differences in the standard vs. atypical speech and language environment provided by the deaf parents involved. Griffith (1985) explores some of the reports above and proposes that three conditions may be essential if speech/sign/language development are to occur:

(1) To acquire any language, regardless of modality, a child must be exposed to that language.

(2) To acquire two languages, the child must have exposure to both languages.

(3) Exposure to a language must be direct rather than indirect (p. 216).

Thus, some hearing children of deaf parents -- but not all -- may experience problems in learning the speech and language patterns of their community, or of their own parents. Such problems, if they exist, should therefore be amenable to change, through a program of information and intervention, such as that provided through this project. Further, on a very practical level, developmental delays in speech and language performance have been cited in the recent requests to the Center On Deafness from health and welfare agencies, asking for help in educating these families.

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b. <u>Child-Care and Child-Management</u>

Problems in rearing children and, especially, in providing effective behavioral management were also among those mentioned frequently in the requests leading to this study. Such problems can result both from literacy deficits experienced by many deaf parents, and hence, their limited access to child-care information,

and from parent/child miscommunication, as noted above.

One study of the parenting skills of deaf parents with non-deaf children evaluated 19 parent-child pairs from 15 different families (Jones, Strom, & Daniels, 1989). The criteria included parent satisfaction, parent success, home teaching, parent difficulty, parent frustration, and child rearing information. Most of the items reflected a favorable view of the deaf parents, both by the parents themselves and by the children. However, the parents strongly agreed that they needed "more information about child-rearing" (p.314). They wanted to know how their children should act, how to make and keep rules which were fair, how to teach decision-making, responsibility, and self confidence, and how to encourage positive attitudes toward school work. One problem unique to deaf parents involved helping their children deal with the social response to having parents who use sign language and (frequently) faulty speech. Another troublesome point was whether or not to use their hearing children as interpreters -- and, if so, to what extent. The article also brought out the frustrations of parents when children had poor sign language skills -- and the frustrations of children when parents asked them to interpret, especially during conflict situations. The general tenor of the article pointed to deaf parents as interested and caring -- but as needing more information to help them in the parenting process.

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c. **Communication with Health Care/Service Providers**.

The communication difficulties enumerated above may be further compounded by the very limited information on deafness available

for most health care and social service providers. Because profound and prelingual deafness is such a low incidence disability (less than 0.01% of the population), many health-care workers have never met a deaf person and have no information on how to help them. This lack has been demonstrated through multiple miscarriages of service -- faulty communication; failure of the provider either to identify problems or to impart essential information to the deaf client/patient/parent; and failure of the deaf person, in turn, to understand and to make sure that he/she understands the message.

One rather extreme example of this misunderstanding is the case of Joey (Walker, 1987), in which a deaf couple had their hearing son removed from their home at the age of 3 months, because his milk allergy was incorrectly diagnosed as "salmonella poisoning", and the Florida Department of Health thereby labelled the couple as "incompetent parents". Joey was eventually returned to his parents, but only after 4 years of bureaucratic struggle.

The composite of potential problems, as described above, creates a clear but frequently unaddressed need for families of deaf parents with hearing children.

Audience

The **target audience** for this project, therefore, was comprised of families of Deaf Parents with Hearing Children (DP/HC families), specifically, those with preschool children, age 0-5 years. It was estimated that direct literacy training would be provided for 8 to 10 such families in Allegheny County; and that the materials developed would be of value for all DP/HC families with 0-5 year-

old children statewide (estimated as 4000 in 1990, with another 1000 each year). Observational data on DP/HC interactions should prove of national interest, as documented information on these interaction patterns remains quite sparse.

Chapter II
Objectives

II. OBJECTIVES

In setting up this model project, the main objectives were:

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a. Identification:

(1) to identify and document family literacy needs experienced by DP/HC families; and

(2) to identify and recruit project participants from the target population in the Pittsburgh area;

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b. Instruction in Family Literacy:

(1) to provide small group family literacy sessions, for instruction and counseling to meet the identified needs of deaf parents with hearing children;

(2) to provide learning activities for the young hearing children within these DP/HC families.

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c. Collection/Development of Special Materials:

(1) to collect and make available existing books and materials of value for deaf parents of hearing children; and

(2) to develop additional materials appropriate for DP/HC families -- for their independent use and as an adjunct to training;

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d. Collection of Communication Data re: DP/HC Families:

(1) to evaluate the verbal development of the target group of young hearing children with deaf parents -- adding to the existing cadre of information on this special population.

(2) to gather information on parent/child communication patterns, as reported by members of DP/HC families;

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e. Dissemination of Information:

(1) to disseminate the brochures produced; and to share information on the collected communication data and on the implementation of the DP/HC Family Literacy Workshops, through professional journals, newsletters, and meetings.

(2) to provide information, consultation, and a greater awareness for local health-care professionals, re: service needs and strategies for helping DP/HC families.

To establish a model family literacy program for families of Deaf Parents of Hearing Children, this project implemented and evaluated each of the above objectives -- as described in Chapters III, IV, V, VI, and VII below.

Chapter III
Identification

III. IDENTIFICATION

The Process: Identifying needs and recruiting project population

As a preliminary step in establishing this model program, project staff sought to identify DP/HC families within the greater Pittsburgh area and to determine the major literacy-related needs experienced by members of these family units. Contacts were made with a variety of sources -- both to help identify the needs and to locate deaf parents (or parents-to-be) who might benefit from the family literacy training.

To identify targeted DP/HC families in this area, the following sources were contacted: (a) organizations for the deaf (in particular, the Western Pennsylvania School for the Deaf (WPSD) Alumni Association, the Pittsburgh Association of the Deaf, and the Catholic Office for the Deaf); (b) deaf leaders in the area -- including deaf parents of older hearing children; (c) adult hearing children of deaf adults; (d) staff members and parents of children at local schools and Intermediate Units (WPSD, IU-3: Allegheny County, Pittsburgh Public Schools); (e) deaf adults attending the Literacy classes at the Center On Deafness; and (f) the Center Advisory Board, including several deaf members.

The source list for identifying the needs of the target families included all the above, plus local hospitals (especially Children's Hospital of Pittsburgh and Allegheny General Hospital); the University of Pittsburgh Department of Special Education; the Center for Community and Professional Services at the Pennsylvania School for the Deaf; personnel involved with the American Red Cross, the Poison Control Center, the National Center for Missing

Children, and the National Center for Law and the Deaf. In particular, Stephen Rute, president of the WPSD Alumni Association, was requested to help, both in identifying the parenting needs which members have experienced and in locating potential participants for this training. Identification continued throughout the project.

Results:

As a result of the recruiting efforts, 54 families of deaf adults were identified who were parents of young normally-hearing children, and who might be interested in participating in the DP/HC workshops. Contacts were then made which each of these persons, and letters were sent to them regarding potential times they could attend the workshops, specific needs or areas which they would like to have addressed, and information on the number and ages of their hearing children. Responses were received from 28 persons. The needs information was then tabulated, along with that derived from other sources, in order to provide a basis for the workshop curriculum and for the specialized materials collection and development. The following areas were emphasized, listed in order of frequency:

Areas of Need Identified by Deaf Parents of Hearing Children

Communication/Interaction Pointers -- hearing child to deaf parent and vice-versa

Language/Speech/Reading Development -- including evaluation of the verbal development of the hearing children

Behavioral Management

Child Care (health, nutrition, etc.)

Emergency tips (safety, communication with hospitals, etc.)

Sharing of Problems and Solutions with other deaf parents of hearing children (for the deaf parents involved)

Helping hearing children understand that they are not alone in their frustrations (e.g., in trying to communicate with deaf parents)

Public School Regulations

Participant Population

The final group of people who participated together in the DP/HC workshops, and in related activities, was comprised of 11 families -- with 16 deaf adults, 1 hearing companion of a deaf adult, and 12 participating children. Four (4) other hearing children were members of the participating DP/HC families but were too young to come (2 to 7 months old) or were unavailable to the parent at the time -- bringing the number of children possibly affected by the project workshops to a total of 16.

As the original application estimated that 8 to 10 families would participate, the actual project more than fulfilled expectations. Further, all but two of the families represented attended at least 5 of the 6 workshops, and most attended every one. (The other two participants, mothers of very young infants, came to only two of the workshops, but requested that more be held later.)

Of the adult participants, 11 were female and 5 were male. Each of the 5 males were attending with their wives or live-in partners. Three of the other 6 females were married but their husbands did not attend. Three others were single parents. One of the latter was accompanied by a hearing friend, a female who also served as her interpreter in other situations.

Nine (9) of the adults (56%) were college graduates or had attended college for at least one year (National Technical Institute for the Deaf, Gallaudet College, Indiana University of PA, Community College of Allegheny County, and L.A. Pierce College). The other 7 were all graduates of high school (WPSD), some having also attended post-secondary vocational/technical schools. Twelve (12) in all were WPSD graduates; 4 were graduates of public high school (3 of these following Elementary years in DePaul Institute for the Deaf or Clarke Oral School for the Deaf). Only one had attended public school throughout her schooling.

All adults had hearing parents except for one, whose mother was deaf.

The participating 12 hearing children ranged in age from 2.25 years to 7.83 years, with a mean of 4.13 years. Eight (8) of these were under 5 years of age, with a mean of 3 years. The other 4 had a mean age of 6.5 years. (Three of the non-participating children were in the 2 to 7 month range; one was 9 years old.) Of the total 16 children, 6 attended Nursery School, 3 were in Kindergarten, 4 in grade school, and 3 were not yet in any school setting.

Chapter IV
Family Literacy Workshops

IV. FAMILY LITERACY WORKSHOPS

Once the needs had been established and a cadre of interested participants had been identified, a series of family literacy training sessions was scheduled for the DP/HC families.

Implementation:

A series of 6 sessions, 3-4 hours each, was conducted in the Parent/Infant "model apartment" area at the WPSD Center, each session focusing upon topics of special interest and need to the participant families. The series was held on Saturday mornings, from 9 am to 12 noon, as requested by the participating parents. However, the sessions usually extended to 1 pm, as the parents wished to explore and discuss each of the topics in increasingly greater depth.

A schedule for the entire set of family workshops is included in this report as Figure 1. As can be seen in this schedule, each of the workshops included specific and different activities for the parents and the children. This allowed the parents to concentrate on the content areas of interest to them, while at the same time providing language, speech and sign evaluation for the children, along with instructional and play activities.

The topics for parents included the following speakers:

(1) **Language Development and Evaluation: Overview** -- Dr. Charlotte Johnson, Communication/Language Specialist, Children's Hospital of Pittsburgh

(2) **Language and Reading Strategies: Ways to Help Your Children** -- Dr. M. Virginia Swisher, Director, Program in Education of the Deaf, University of Pittsburgh

(3) **Behavioral Management/Parenting Skills**
-- Dr. Richard Solomon, Staff Pediatrician, Allegheny General Hospital -- and
Discussion of Behavioral Management from the **SOS: Help for Parents** book and videotape

(4) **Public School Law and Parent Participation**
-- Dr. Richard Brant, Executive Assistant to Deputy Superintendent, Pittsburgh Public Schools

(5) **Medical Emergency and Nutrition Pointers**
-- Diana Andromalos-Dale, Red Cross of Pittsburgh-Allegheny County; and
-- Barbara Horne, Dietician, Children's Hospital of Pittsburgh

(6) **CODA Panel (Children of Deaf Adults)**
-- local adults who are children of deaf parents; and
DAOHC Panel (Deaf Adults with Older Hearing Children)

Each session of the workshop provided extended opportunities for discussion between the speakers and the participating deaf adults, so that they could become maximally involved in each topic. Registered interpreters were provided for the deaf parents whenever the speakers were unable to sign for themselves.

In addition, during each session, the Literacy Coordinator showed portions of the **Videotape "Pathways for Parenting"** (Tebelman, 1989), which was filmed especially for deaf parents of hearing children and touched on the majority of issues presented. Included in the videotapes are 11 vignettes or "Parenting Stories", involving common situations and the potential conflicts therein -- such as "Naming Baby", "Doctor Visit", "Taking Care of Baby", "Birthday Celebration" (including visits with a normally hearing Grandmother and Grandfather), "School Conference", "The Fight", "The Telephone", "The Car", and "Discussing Deafness". Each story is intended to trigger group discussions and learning, building on the story themes. The Facilitator's Guide and a Parent's Guide were

used to help organize the discussion.

While the parents were discussing the issues above, their children were being provided with a very active program of instructional activities, play, and evaluation. The **evaluations** included: language development, speech development, and sign language skills. These evaluations are discussed in detail in Chapter VI. **Sign language instruction** was offered for hearing children whose parents requested it, taught by a deaf instructor, Nancy DeWitt. The tutoring concentrated on the basic vocabulary of the child's environment (home, pets, toys), plus information on how to ask questions. Sign language videotapes of nursery rhymes and fairy tales were also available.

The **Baby-Sitting/Play-Time program** included:

Free-Play Activities -- beginning with a 20-minute period of "getting acquainted", through drawing family pictures, playing board games and constructing puzzles. These enterprises were followed by more physical activities in a large play room, where the children rode Big Wheels and climbed on the jungle gym.

Story/Circle Time -- in which the children shared news from home, participated in finger plays, and acted out story characters.

Snack Time -- complete with juice, milk, and cookies.

Art Activities -- providing a wide range of opportunities for the children to finger paint, model with clay, create holiday greeting cards, construct masks, and paint with water-chalks and paints.

Group Activities -- often ending the day -- in which all the children participated in relay games, talent and fashion shows.

Figure 1

SCHEDULE FOR FAMILY WORKSHOPS -- Deaf Parents of Hearing Children
2/29; 3/21; 3/28; 4/11; 4/25; 6/13 -- 9:00 am - 12:00
Center On Deafness: Western PA School for the Deaf
Monica Anthony, Program Coordinator

Feb 29, 1992:

For Parents: 9:00 - 10:15..... Room 12, Center On Deafness

Introduction to Program
-- Rosemary Garrity, Center Administrator

Introduction of Staff -- Rosemary Garrity:

Program Coordinator: Monica Anthony
Children's Activities Coordinator: Cindy Douglass
Communication Facilitator: Mary Ann Stefko
Sign Instructor: Nancy DeWitt
Research Director: Helen Craig
Discussion Leaders: Stephen and Nancy Rute
Language Evaluator: Dr. Charlotte Johnson

Language Development and Evaluation: Overview
-- Dr. Charlotte Johnson
Communication/Language Specialist
Children's Hospital of Pittsburgh

For Children: 9:00 - 10:15 **(in Center Recreation Room)**

Babysitting/Play time

10:15 -- Parents and Children Move to Parent/Infant Area:
3rd Floor, WPSD -- Refreshments
10:30 -- Program Continues

For Parents: 10:30 - 12:00 -- 3rd Floor Conference Room

"Pathways for Parenting Video: A Program for Deaf Parents with Hearing Children" (viewing/discussion)

For Children: 10:30 - 12:00 -- Parent/Infant Apartments:

Language Evaluation and Auditory Screening
-- Dr. Charlotte Johnson
-- Mary Ann Stefko
Sign Language Instruction/Practice
-- Nancy DeWitt
Babysitting/Play time (Living Room of P-I Apt)
(Babysitters provided every workshop day)

(cont)

FIGURE 1 (cont.)

March 14 -- 9:00 AM to 12 noon

For Parents:

Language and Reading Strategies: Ways to help your children
-- Dr. M. Virginia Swisher, Professor
Program in Education of the Deaf
University of Pittsburgh

Discussion: "Pathways for Parenting" Video (cont)

For Children:

Language Evaluation and Auditory Screening
-- Dr. C. Johnson & M.A. Stefko
Videotaping of Children's Language in Structured Play
-- Cynthia Douglass
Sign Language Instruction/Practice

March 21 -- 9:00 AM to 12 noon

For Parents:
Discussion of Behavioral Management:
-- "SOS! Help for Parents", as a basis

Behavioral Management/Parenting Skills
-- Dr. Richard Solomon
Allegheny General Hospital

For Children:
Evaluations (Language/Sign/Interactions)
Sign Instruction/Practice

March 28 -- 9:00 AM to 12 noon
For Parents:

Public School Law and Parent Participation:
(Ways to help your children in public schools)
-- Dr. Richard Brandt
Executive Asst. to Deputy Superintendent
Pittsburgh Public Schools

Communication/interaction Pointers
-- Monica Anthony, Discussion leader

For Children:

Evaluations (Language/Sign/Interactions)
Sign Language Instruction/Practice

(cont)

FIGURE 1 (cont.)

April 11 -- 9:00 AM to 12:00 noon

For Parents:

Medical Emergency Pointers
-- Diana Andromalos-Dale
Red Cross: Pittsburgh-Allegheny County Chapter

Nutrition Pointers for Your Children
-- Barbara Horne, Dietician
Children's Hospital of Pittsburgh

Child Care/Safety Pointers

For Children:

Sign Language Instruction/Practice
Evaluations

April 25 -- 9:00 AM to 12 noon

For Parents:

CODA Panel (Children of Deaf Adults)
-- Local Adults who are children of deaf parents
DAOHC Panel
-- Deaf Adults with Older Hearing Children

Discussions: Pathways for Parenting video (cont)
Wrap-up Discussions

For Children:

Sign Language Instruction
Evaluations

June, 1992

For Parents:

Individual Discussions of results from the evaluations of their children
Distribution of Materials for Review and Reinforcement
Program Evaluation (by Participants) of Family Literacy Workshops

Evaluation Measures

The evaluation measures conducted as part of the parental portion of the workshops included:

(1) **a self-report by each of the participating parents** on their own perceived behaviors and attitudes re: their hearing child (or children) -- specifically, in the areas of (a) language and reading, and (b) behavioral management;

(2) **a post-program evaluation** by the parents re: the effectiveness of the workshops and the program as a whole.

The Self-Report measure was given at the very beginning of the first workshop. The Post-Program Evaluation was given toward the end of the last workshop. Each participant was given a copy of both measures.

Results

1. **Self-Report Instrument**.

Of the 16 deaf adults participating in these workshops, all but two filled in the Self-Report measure, for an 88% response rate. Two of the 16 adults (one couple) also filled in two different forms, because they had different responses for their two children on several of the questions.

Each set of questions in this instrument asked the parents to "Please check how much you agree with each sentence, as it relates to your hearing child." Possible responses were "Usually", "Many times", "Sometimes", and "Never".

(a) The Language/Reading Area.

For the most part, the parents reported that they did understand their hearing children and vice versa; and that they did engage in literacy type activities with their children on a

frequent basis.

The statements relating to **mutual understanding** were:

"My hearing child wants something (cookie, milk). I understand what he/she wants."

"My hearing child wants to do something (go outside, go to the store). I understand what he/she wants."

"I tell my hearing child to do something (go to bed, pick up clothes). He/she understands what I want."

"I ask my hearing child questions. (Where is your train? Where is your coat?") He/she will answer me."

"My hearing child and I communicate about things together."

In response to these questions, 59% of the responses indicated that the parents and children "usually" understood each other; 25% indicated that they understood "many times"; and 16% only "sometimes". There were no reports of "never" understanding in this category of statements.

The second series of statements related to **literacy learning** behaviors by parents and child. These included:

"I read books to my child."

"I read labels and store signs to my child (cereal boxes, soup cans, EXIT signs, etc."

"My child asks me what written words mean (in books, labels, store signs)."

"My child enjoys reading with me."

In this category of behaviors, there was a lower percentage of "usually" responses (24%), with a higher number of "many times" (33%), and "sometimes" (37%), and even 6% with a "never" response. In particular, these percentages were affected by lower reports of reading in the non-book areas (e.g., labels and store signs) -- possibly due to the very young age (2-7 months) for some of these

children .

(b) **The Behavioral Management Area:**

The Behavioral Management statements were divided into 3 main areas: (a) **parental ability to set limits;** (b) **parental attitudes and emotions re: their hearing child's behavior;** and (c) **communication problems which could affect the child's behavior** and parental response. In each of these, the statements presented common "problems which many parents have with their children" and asked the participants to indicate how often they have the same problems.

The statements relating to **limits and rules** were:

"I don't know how to discipline my child."

"I have a hard time making my child understand."

"I have trouble explaining rules to my child."

"I let my child do whatever he wants, so he won't 'blow his top'."

"I have problems setting limits or rules with my child."

"It is hard for me to say 'no' to my child."

"I threaten to punish my child but do not punish him/her."

In this area, most parents reported that they had problems setting limits and enforcing rules "sometimes" (54%) -- although 20% reported that they "never" had such problems. Only 13% indicated that they "always" had these problems, and another 13% reported that they did have these difficulties "many times".

The statements relating to parental **emotions and attitudes** toward their hearing child's behavior were:

"I feel I need more time away from my child, or I'll go go crazy."

"My child is out of control."

"Being a parent isn't as easy as I thought it would be."

"My child really knows how to make me angry."

"I lose my temper with my child."

On these statements, most parents reported that they agreed "sometimes" (57%) or "many times" (22%) -- with only 8% indicating that they "always" felt/behaved this way, and only 13% that they "never" had these emotions or attitudes.

The **communication problem** statements included:

"I have trouble talking to my child on his/her level."

"I don't know when my child is sad or unhappy."

"I have difficulty finding time to spend with my child."

"I worry when my child is with people I can't communicate with."

Here, most parents reported that they only "sometimes" (44%) or "never" (38%) experienced these problems, with only 8% indicating they had such problems "always", and another 10% "many times".

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2. Post-Program Evaluation

The post-program evaluation was filled out by 13 of the 16 participants, for an 81% response rate.

The evaluations were divided into: (a) extent that each of the workshop components was helpful to the participants; (b) ratings of the Children's program, including the Sign Instruction for children; (c) an assessment of the Language Evaluation component; and (d) an Overall evaluation. Participants were asked to rate each component or area on a scale of 1 to 5 (poor to excellent). They were also asked to comment on which items were most/least

helpful for them and to make suggestions for future workshops.

a. **Value of Program Components**

The participants evaluated each of the workshop topics on the 1 to 5 scale. A percentage rating for the value each topic was then established by assigning 20 percentage points to each point on the scale (e.g., from 20% to 100%). The results are listed below, in order of perceived value:

TOPIC/COMPONENT	RATING
Behavioral Management	86
Panel: Deaf Parents of Older Hearing Children	86
Emergency Procedures (choking, etc.)	84
Panel: Older Children of Deaf Adults	83
Language Development	80
"Pathways for Parenting" Video	77
Public School Law	74
Nutrition	62

On the open-ended questions relating to the parts of the workshop which were most and least helpful, the responses mirrored the above data. Again, Behavioral Management and the CODA and DPOHC panels were considered the most helpful topics, with Nutrition the least useful.

In the Behavioral area, in particular, the participants specified points that had been especially useful for them. For example:

"Good ideas for discipline ..... I'm at a loss!"

"Before T... [did] not listen to me."

"Improved my care of my children"

"Liked the SOS Book and the time-out ideas"

The parents also appreciated the opportunity for sharing similar experiences with the panel members who were themselves Deaf

Parents of Hearing Children -- those whose children were now grown and who could discuss the problems and solutions they had found. Further, they found that the CODA panel (hearing children of deaf adults) helped to give them a better understanding of the feelings and potential problems of their own hearing children. As one participant noted, "Listening to hearing adults talk about childhood with deaf parents helped me prepare for my own children's growing pains."

The Nutrition topic proved less interesting to several of the participants, mostly because they did not perceive it as a special problem anyway. However, one or two participants gave this area a very high rating.

In responding to the questions of "most helpful" and "least helpful", several participants indicated that all had been helpful. For example:

"Almost all was worth to go."

"We learned something new and shared all kind of experiences with others"

"Very interesting things!"

b. **Value of Children's Program**

The Children's Program was given an overall rating of "good" to "excellent". Both the parents and the children seemed quite enthusiastic about the quality and variety of activities offered. The parents themselves did not participate in either the play or Sign instruction activities, as they were involved with their own program topics at the same time. However, the parents were aware that their children were enjoying the activities greatly, and they expressed clear satisfaction with the program. One did request

that "in future programs", the parents should be given more feedback on the children's activities.

c. **Assessment of Language Evaluation**

Evaluation of the children's language and speech development was a critical part of this project, one in which both the parents and children participated. The description and results of this program component are discussed in detail in Chapter VI. The parents, in turn, provided their assessment of this component -- rating it as "very good" -- an 82%.

d. **Overall Evaluation / Suggestions for Future Workshops**

Overall, the Family Workshop program was rated as "Very Good" or "Good" by all the responding participants (62% and 38% respectively). One further indication of the perceived value of this series is that every one of the participants (100%) reported that they would like to have more "Deaf Parents of Hearing Children" Workshops. They wanted to continue with more sessions themselves, and they reported that other families would like to participate in a new set of workshops and evaluations.

Suggestions for information and activities in future workshops included:

(1) more of the same -- same topics but more time for each, including, in particular:

  (a) language and speech;
  (b) sign language for the children
  (c) behavior management
  (d) opportunities for sharing with DPOHC and CODA groups

(2) actual counseling for hearing children of deaf parents who indicated the need for this service

(3) integrated situations for the hearing children (with peers who are deaf), so that they can learn how to communicate together. This was requested "even for very young children."

(4) more on behavioral development -- the stages and what to expect;

(5) more deaf presenters who have had experience with hearing children (DPOHC) and children of deaf adults (CODA).

Chapter V
Specialized Materials: Collection and Development

V. SPECIALIZED MATERIALS: COLLECTION AND DEVELOPMENT

Materials to reinforce the training workshops were both collected and created as part of this project. Those collected were used in the workshops and then made available to parents through a special lending library. Because very little is currently available for parents who are deaf, one key component of this project was also the production of print materials especially for these parents -- written at an easily readable level, illustrated to assure comprehension, and addressing issues which are unique to deaf parents of hearing children.

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1. Materials Collected:

As part of this project, a Family Literacy Lending Library was set up in the Center's Literacy Classroom, making available to parents a wide variety of books, pamphlets, and videotapes, both to help them in the parenting process and for their children to use and enjoy in improving their own literacy skills. Many of the materials collected were used first in the workshop sessions and then put into the Lending Library for continued use.

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a. Materials for Parents:

For parents specifically, the collected materials included books and pamphlets on:

(1) **Behavior Management** -- in particular, a copy for every parent attending the workshops, and an additional 6 copies in the lending library of:

SOS! Help for Parents (Clark, 1985) -- a practical guide for handling common everyday behavior problems;

(2) **Home Activities** -- books and pamphlets providing ideas on activities to encourage and enhance:

a. Motor Development -- 3 booklets
b. Play and Toys -- 4 booklets
c. Speech/Language -- 4 booklets
d. Concepts -- 2 booklets

Note: A number of pamphlets from CONNECT Information Service in Harrisburg, PA were collected and bound together according to related topics, e.g., "Beginning to Talk: How Parents Can Help".

(3) **Health and Safety** -- pamphlets on:

(a) Common Illnesses
(b) Child Protection for:
Finding Babysitters
Finding Day Care
Preventing Runaways

(4) **Books Before Five** -- a recommended listing for parents.

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b. **Materials for Children:**

Included among the materials for children were the following:

(1) **2 Tape Recorders and 17 accompanying books** -- to provide hearing children with additional auditory language stimuli. Included are books such as: Mother Goose Rhymes, Dr. Seuss, the Berenstain Bears, and Disney

(2) **22 Little Golden Books**

(3) **6 Children's Sign Language Books**

(4) **2 Beginner's Dictionaries**

(5) **3 Looney Tunes**

(6) **8 Dr. Seuss Books**

(7) **13 Sesame Street Books**

(8) **19 Early Childhood Books (misc.)**

(9) **6 Animal Books** (Barnes/Noble Series)

(10) **23 Early Elementary Books** (misc.)

(11) **6 Non-narrated Picture Books** (Good Dog, etc.)

(12) **5 Alphabet Books**

(13) **15 Popular Tales** (Winnie the Pooh, Rudolph, Frosty, etc.).

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c. **Videotapes:**

(1) **3 Videotapes with 12 Signed Fairy Tales**

(2) **Parent Sign Series** (1 set = 10 videos)

(3) **"Pathways for Parenting"** (2 sets = 6 videos) plus 4 Supplementary Workbooks

Notices have been sent out to all parents involved in the workshops and to any others identified on the original listing, so that they can take advantage of the offerings in the new Family Literacy Lending Library.

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2. **Materials Developed: The "TIPS" Brochures:**

Because available materials, even those collected above, were insufficient to meet the needs of our target audience, a series of brochures was also developed specifically for deaf parents with hearing children -- TIPS: Toward Improved Parenting Skills. These brochures, offering a supplement to each of the topics covered in the Parenting Workshop series, were written by the Literacy Coordinator, Monica Anthony, and were edited by the Director of Research, Dr. Helen Craig, and the Administrative Director, Rosemary Garrity. The publication was then formatted and illustrated on the Macintosh computer by Patricia Karn, Publication Editor; and multiple copies were printed for wide distribution among the target population.

Included are the following issues: [Copies of each are enclosed.]

(1) For Deaf Parents with Hearing Children: **Behavior Management;**

(2) For Deaf Parents with Hearing Children: **Self-Esteem;**

(3) For Deaf Parents with Hearing Children: **Your Child's Language Development;**

(4) For Deaf Parents with Hearing Children: **Your Child"s Speech Development;**

(5) **The Deaf Parent in a Hearing Child's School;**

(6) For Deaf Parents with Hearing Children: **Safety;**

(7) For Deaf Parents with Hearing Children: **Nutrition.**

Each brochure followed a similar format, for ease of retrieving information, and included: (a) a cover page; (b) 4 to 10 illustrated information pages, providing the key points on each issue in clear, easy-to-read language; and (c) a summary page of "Things to Remember".

All brochures are being distributed to each of the participants in the parent workshops and to other deaf parents of hearing children who were identified as part of this project. They will also be sent to agencies and service personnel who are likely to be involved in providing information to members of this target population. Copies will be sent to AdvancE and ERIC to assure broad distribution.

Results:

Because the production and printing of these brochures could not be completed before the end of the project, there has been no time yet for feedback on the perceived value of this product for the target audience. However, comments by all who have seen the series are highly encouraging; and specific evaluation requests will be distributed along with the brochures, to determine their value in a more objective process.

Chapter VI
Communication
Data

VI. COLLECTION OF COMMUNICATION DATA

A systematic evaluation protocol was designed for evaluation of selected communication factors among families of deaf parents with hearing children, addressing the following **research questions:**

(1) To what extent, if any, is English language use and development delayed for the young hearing child of deaf parents?

(2) What is the extent of sign language use and development among young hearing children of deaf parents?

(3) How do deaf parents communicate with their young hearing children -- and young hearing children with their deaf parents?

These questions are discussed in the sections below.

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1. Evaluation of English Language Development

a. Evaluation Measures.

The standardized measures of language selected for all 8 children under 5 years of age included:

(1) **Peabody Picture Vocabulary Test (PPVT-L)** (Dunn & Dunn, 1981) -- to measure receptive (hearing) vocabulary of Standard American English

(2) **Expressive One-Word Picture Vocabulary Test: Revised (EOWPVT)** (Gardner, 1990) -- measuring ability to make verbal identifications of pictures

(3) **Preschool Language Scale (PLS)** (Zimmerman et al, 1979)

Auditory Comprehension (e.g., following directions, recognizing colors, recognizing actions)
Verbal Ability (e.g., naming objects, repeating sentences, articulating consonants)

A different language measure, more appropriate for older children, was selected for the 4 children between the ages of 5 and 8 years. This instrument, the Test of Language Development: Pri-

mary Edition (TOLD-P:2) (Newcomer & Hammill, 1991) is a 2-dimensional model, with 7 sub-tests, each measuring a child's strengths and deficiencies in both a specific linguistic system (listening or speaking) and a specific linguistic feature (semantics, syntax, or phonology), as listed below:

(4) **Test of Language Development: Primary Edition (TOLD-P:2)**

(a) Linguistic Systems:

Listening (Receptive skills in: picture vocabulary, grammatic understanding, and word discrimination);

Speaking (Expressive skills in: oral vocabulary, sentence imitation, grammatic completion, and word articulation)

(b) Linguistic Features:

Semantics (picture vocabulary and oral vocabulary)

Syntax (grammatic understanding, sentence imitation, and grammatic completion)

Phonology (word discrimination and word articulation)

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b. Evaluation Procedures

The language evaluation measures were administered by Charlotte E. Johnson, Ph.D., Speech/Language Pathologist, Department of Communication Disorders, Children's Hospital of Pittsburgh. Because the deaf parents were included in the evaluation sessions, it was also necessary to provide interpreting services for the parents. These services were provided by Mary Ann Stefko, Communications Specialist at WPSD and the Center On Deafness. The testing sessions lasted for approximately two hours each. For the younger children, the sessions were sometimes split into two different time

periods, so that they could maintain interest in the task.

The tests were administered to each child individually, with one or both parents present for the evaluation sessions. In order that the parents would not miss the featured speakers for each session, the evaluations were conducted during the "Pathways to Parenting" videotape presentation and discussion, which they could then pick up and view at a later time.

---

c. **Results:**

The standard scores for each child, on each of the language measures administered, are listed (without identifying information) in Table 1. For the 8 younger children (with a mean age of 3 years) the mean standard score on the PPVT was 94.0, while the mean standard score on the EOWPVT was 101.9. On the Preschool Language Scale, the mean Auditory Comprehension (receptive language) score was 112.4; the mean score for Verbal Ability (expressive language) was 102.4. As can be seen in Table 1, all but one of these children were well within or above the normal range, especially considering the 4 scores as a composite. The parent of the one child whose scores do indicate a delay was encouraged to pursue further auditory and psychological evaluation for the child, as a first step in assuring that she will receive appropriate remedial attention.

The four older children (with a mean age of 6.5 years) all scored well within the normal range on each subtest of the Test of Language Development (TOLD), with the following standard score means: Listening -- 107.0; Speaking -- 96.8; Semantics (meaning) --

TABLE 1

Summarized Standard Scores on the Peabody Picture Vocabulary Test (PPVT); The Expressive One-Word Picture Vocabulary Test (EOWPVT); And The Preschool Language Scale (PLS) - Auditory Comprehension And Verbal Ability

	PPVT-L	EOWPVT	PLS	
Child			Aud Comp	Verb Abil
1	91	100	122	105
2	82	95	118	104
3	100	-	122	-
4	76	82	71	67
5	104	87	126	122
6	97	125	107	110
7	96	112	116	92
8	106	112	117	117
M	94.7	101.9	112.4	102.4
SD	10.5	15.3	17.6	18.4

TABLE 2

Test of Language Development -- Primary Edition (TOLD-P)
Summarized TOLD-P Quotients

Child	Listening	Speaking	Semantics	Syntax	Phonology	Overall
9	104	100	112	111	109	112
10	111	92	97	96	109	100
11	98	97	103	85	109	97
12	115	98	118	98	103	96
M	107.0	96.8	107.5	97.5	107.5	101.3
SD	7.5	3.4	9.3	10.7	3.0	7.4

107.5; Syntax (grammar) -- 97.5; and Phonology (sounds) -- 107.5. The overall standard score mean was 101.25 (SD = 7.4).

During the evaluation procedure, the evaluator observed that one child had a minor speech problem, an excessively hoarse voicing, a consequence of vocal straining which could lead to additional difficulties, such as vocal nodules, as the child grew older. This voicing problem (because it did not affect articulation) had no bearing on the standardized test scores. However, the parents were advised to seek help with the problem from a qualified speech therapist.

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2. **Evaluation of Sign Language Development**

a. **Evaluation Measures and Procedures:**

The Sign language evaluation was less formalized than the English language assessment, due both to the limited time available and to the lack of standardized measurements of early Sign performance. The measure used was designed by the Sign language evaluator, Nancy DeWitt, an ASL Sign language instructor and a Teacher Aide at WPSD, who is herself profoundly deaf and a native user of ASL. The evaluator interacted with the children, using ASL, while another individual recorded the results in writing. These evaluations took approximately 30 minutes per child. The evaluator and recorder discussed each of the evaluations after the child had left, so that they were in agreement regarding the recorded results.

The evaluation included: receptive ability (single words, phrases and sentences); and expressive ability (re: signs for

colors, numbers, and alphabet, plus use of appropriate facial expression, and conversational skills). These measures were descriptive only, as no standardized norms were available.

Only 6 children were given the Sign language evaluation, both because of time limitations and because the parents of some children preferred not to have this evaluation. The mean age for the 6 children evaluated was 4.0 years, with the youngest being 2.3 years and the oldest 6.9 years.

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b. **Results:**

The results of the Sign language evaluation indicated that all the children evaluated had "good" comprehension of signed words. Of the 4 older children (3.8 through 6.9 years), comprehension of sentences was only "fair to good" for one child, but was "good" for another, and "good to excellent" for the other two. Expressive Sign evaluation showed that the younger 2 children (2.6 and 2.3 years) each imitated signs well, although they had limited expressive ability. The older 4 children all know the signs for their own name, the colors, numbers, and the alphabet, and could imitate other signs. In three cases, this imitative ability was considered "good"; and the same three children had "good facial expression" or "good effort for facial expression"; and two of these were rated as having "good conversational skills". Two children used many natural gestures and mime for unknown signs; and three used several signs that were "underdeveloped". Half of the children used signs without voice; and half used voice -- sometimes with more voice than signs.

Observations by the evaluation team for the hearing children as a group established that all the children had some Sign language skills, but that there was a wide variance among the group, some with very minimal skill, some quite advanced. There was also a great difference among the expectations and communication behaviors observed among the participating parents -- with most using speech or speech and Sign together with their children, but some using Sign only or predominantly Sign and gesture. These observations were reinforced by the parents' own reporting of their communication behaviors, as discussed in the following section.

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3. **Evaluation of Parent/Child Communication Patterns**

a. Evaluation Measures and Procedures:

Parent/child communication patterns were evaluated as part of the initial questionnaire which was given to workshop participants. One series of questions asked the deaf adults how **they** communicated with their hearing child "most often", and "sometimes". The choices available were: ASL, Signed English, PSE (Pidgin Signed English -- a mixture of ASL signs in English word order), Sign and Speech, Speech, Gesture, and Writing Notes.

The second series of questions asked the deaf adults, "How does **your hearing child** communicate with you?" -- "most often" and "sometimes". The same communication choices were available.

A related series of questions, also asked at this time, dealt with the frequency of contacts which the hearing children had with other normally hearing persons -- daily, 2 to 5 times a week,

weekly or less. Another related question asked how often the hearing child attended "deaf" social events with his/her parent (i.e., social events in which the majority of participants were deaf) -- e.g., to the Deaf Club, Church for the Deaf, Sports, or Picnics.

Additional sources of information on the communication patterns was provided by the parents in discussions with the speakers and in informal observations. In the initial proposal, it had been anticipated that the interactions between parent and child would be videotaped. However, because the parents and children were attending different programs within the workshop, such sessions could not be arranged without disrupting the program flow. Further, several of the parents were uncomfortable with the idea of being videotaped, so that portion of the evaluation was not conducted.

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b. **Results:**

Thirteen (13) of the deaf adults responded to this series of questions. Of the 13, 8 participants (62%) reported that they most often used "Speech" (31%) or "Sign plus Speech" (31%) in communicating with their hearing children. Another 3 adults (23%) reported using ASL most often, and 2 adults (15%) reported using PSE most often with their hearing children.

All methods of communication were checked by at least one parent when asked how they communicated "sometimes". The resulting percentages here add up to more than 100%, as any parent could choose more than one alternative. The largest percentage of parents (46%) checked Speech as one method they used to communi-

cate; 31% checked Sign plus Speech; 23% checked ASL; and 15% each checked Signed English, PSE, and Gesture. One parent reported Writing Notes as one means of communicating with his hearing child.

The communication methods most frequently used by the hearing children were Speech (46%) and Sign plus Speech (23%). Three of the children (who were, in fact, babies) were reported as using Gesture most frequently; and one parent reported that her child used ASL most frequently with her. The methods used by the children "sometimes" included, in order of frequency reported: Gesture (46%), Sign and Speech (31%), PSE (15%), Speech (8%), Signed English (8%), and Writing Notes (8%).

During the discussion sessions, one parent indicated that she communicated with her child entirely through ASL, whereas a hearing relative who lived in the same house communicated entirely through spoken English. Thus the child had daily access to both ASL and English. Other parents indicated that their hearing children communicated primarily with the more oral parent, using her (or him) to relay messages to the other. Others felt that it was very important for the hearing children to learn to speak well, so that they could get along with their peers in school; therefore, they communicated with their children primarily through speech.

Related information (available on all 16 children) indicated that 6 hearing children of the deaf participants had daily contacts with hearing persons -- i.e., a grandparent or other hearing relative who either lived in the same house or visited daily. Eight (8) of the children had contacts with other hearing persons from 2 to 5 times a week (relatives, nearby friends, or schoolmates). Only

two had contact with hearing persons as infrequently as weekly or less. As noted earlier, 6 of the children attended Nursery School, 3 were in Kindergarten, and 4 in Grade School. Three were not yet in any school setting.

Contacts with deaf persons, other than the child's parents, were provided to the hearing children through picnics (by 64% of the respondents), church (27%), sports (27%), and the Deaf Club (18%).

Summary of Results

In response to the research questions posed at the beginning of this chapter, the results of this project have indicated the following -- at least for these 11 families of deaf parents with hearing children and for those whose circumstances are similar:

1. The English language development of the participating hearing children, whose parents are deaf, was found to be well within the normal range -- both receptively and expressively, both for auditory comprehension and speech. Problems were identified in 2 of the 12 children (16%), one with delayed language development, one with a minor speech problem.

2. These hearing children of deaf parents had learned sign language, even at a very young age, although the degree of skill varied widely. Receptive skill was more advanced than expressive skill, an expected corollary with spoken language skill. Observation would indicate that degree of Sign language skill was directly related to the parents' decisions to use or to eschew Sign language with their hearing children.

3. The common communication mode for the majority of deaf parents and their hearing children was reported to be speech, or a combination of speech and Sign. Some deaf parents reported using ASL or PSE most of the time; but only one child was reported as using any Sign system "most" often.

Discussion

In analyzing the above results, it is essential to consider the characteristics of the participating DP/HC families. The English language development of the 12 hearing children of deaf parents evaluated through this project proved to be equivalent, as a group, to that of the norming groups on all assessment measures -- both receptive and expressive. Only one child in the group (8%) evidenced delayed language development; one other child had a minor speech problem. These results differ from the seminal study of Schiff and Ventry (1976), which identified 21% of their DP/HC sample as having language and/or speech dysfunction. The difference between the two studies may be due to the educational level of the parents (with 56% of the current group as former college attendees or graduates), and to the related fact that almost all of the participants reported that they emphasized English literacy activities for their hearing children. Also, as noted above, in almost all cases the hearing children involved in this project did have frequent and regular access to other hearing adults.

When looking at the question of Sign language development, a combination of the data and of observations by the evaluation team indicated that the level of skill reached by the different children varied extensively. This variance, in part, was a factor of age, with most of the older children having greater facility with Sign, as well as with the English language. However, the differences also appeared to reflect rather closely the emphasis on Sign which the parents themselves displayed -- and whether or not they encouraged Sign use by the children. The children whose parent(s) inter-

acted with them primarily through Sign did learn ASL at an early age. The others tended to rely more on Speech and gesture, although all used Sign to some degree. As a general observation, reinforced by the evaluation results, it thus appeared that the communication decisions made by the deaf parents did affect their hearing children's learning of Sign language, but did not affect their English language development.

The reported patterns of communication between the deaf parents and their hearing children indicated that over 60% of the interaction was primarily Speech, Speech plus Sign, or Speech plus Gesture (especially for the younger children). The parents did report that they were able to understand their children, and vice versa -- and observations appeared to reinforce this assumption for most of the participants. It is possible, however, that some of the behavioral problems reported were due to a lack of fully accurate communication in this cross-modal arrangement.

One effective way of looking at the data collected for this project is in terms of Griffith's (1985) "necessary conditions" for development of language, speech and Sign, as noted on page 12 of this report. The first of these conditions is: **"To acquire any language, regardless of modality, a child must be exposed to that language"** (p.216). In the current project, the results of the English language evaluations would indicate that at least 11 of the 12 children had received sufficient exposure to the English language -- either through the parents themselves or through relatives and other frequent contacts who interacted with them in spoken English. It is highly possible that these parents were so

concerned about their children's development that they made sure their children received ample language input. One evidence of this concern was their willingness to participate in the Family Literacy workshops. Another indication can be found in their reported frequency of literacy-type activities (e.g., reading books to their children).

The second proposed condition is: **"To acquire two languages, the child must have exposure to both languages"** (p.216). Although all but one of the children were within the normal range for development of English language skills, several still had underdeveloped skills in ASL. In at least two cases, the children were not exposed with any frequency to ASL, because their parents used and emphasized Speech skills instead.

The third hypothesized condition is: **"Exposure to a language must be direct rather than indirect"** (p. 216) -- i.e., that the child himself must be involved in the use of that language, and not just be a peripheral observer. One of the cases reported from the literature, for example (Sachs et al, 1981), subjects simply exposed to signing (e.g., through parental conversations with each other) did not learn to sign -- apparently because the Signs were never addressed directly to them. This same lack of direct exposure to Sign may have been a factor in the lack of Sign fluency among some of the hearing children in this project.

Chapter VII
Dissemination

VII. DISSEMINATION

Dissemination of Products and Information

Because the Family Literacy project has just been completed, the dissemination of products and information -- the brochures, communication data, and workshop results -- has yet to be accomplished. However, the process for dissemination has been determined.

a. Brochures.

The TIPS brochures for Deaf Parents of Hearing Children, developed specifically for this project, will be distributed as noted in Chapter V. They will be mailed locally to all the DP/HC families who participated in the workshops and to others identified as part of this process. In addition, they will be sent to health care and service agencies in this area, both those who cooperated in the development of this project and those who may have any contacts with DP/HC families. On a national level, copies will be sent to all "Center" schools for deaf children, each of which will have graduated many students who, in the future, may well have children who are hearing.

In a similar series of Parent Newsletters produced at the WPSD Center On Deafness (for hearing and deaf parents of deaf children), the subscriber list has increased to over 800 persons and agencies in only two years, as potential readers become aware of its availability. A similar expansion of dissemination is anticipated for the TIPS brochures. An integral part of this dissemination process will be copies of the brochures which are being sent to AdvancE for distribution (as noted in the Introduction to this report).

b. **Communication Data and Workshop Results.**

Data on the communication development of hearing children of deaf parents, as collected through this project, and on the process of conducting a workshop series for families of deaf parents and hearing children, will be disseminated both through presentations and through articles in professional journals and newsletters. The audience for this dissemination process will include professionals in general literacy, special education, and language development.

Dissemination of Information for Local Health-Care Professionals.

During the entire conduct of this project, numerous health care professionals were consulted and made aware both of the project goals and the participant needs. Actual workshops for these providers have not yet been presented, because of the time constraints in completing the first 4 goals of this project in only a 6 1/2 month period. However, the process for dissemination has been determined, and the Literacy Coordinator at the WPSD Center is currently scheduling provider workshops for the autumn and winter of 1992. The brochures themselves will be distributed to health-care providers, as noted earlier, serving both to alert their deaf clientele and to remind the providers themselves of the potential problems experienced by Deaf Parents of Hearing Children.

Chapter VIII
Conclusions and Recommendations

VIII. CONCLUSIONS AND RECOMMENDATIONS

Summary and Conclusions

In providing Literacy Initiatives for Families of Deaf Parents with Hearing Children, this project addressed a unique cross-modal population, whose needs for literacy training and parenting assistance are usually overlooked. The first step in this project was to locate a number of DP/HC families in the Pittsburgh area and then to identify, document, and seek to meet their literacy-related needs. Fifty-four (54) families of deaf parents with young hearing children were identified and contacted regarding the proposed services. The final group participating fully in this project included 11 families -- with 16 deaf adults, 1 hearing companion, and 12 hearing children -- for a total of 29 participants.

A series of 6 half-day workshops were provided for these families, with activities planned to meet both the needs of the parents and of the children. Workshop topics for the parents included: (1) Language Development and Evaluation; (2) Language and Reading Strategies: Ways to Help Your Children; (3) Behavioral Management and Parenting Skills; (4) Public School Law and Parent Participation; (5) Medical Emergency and Nutrition Pointers; and (6) Panel Discussions and Sharing, with adult hearing children of deaf adults, and deaf adults with older hearing children. Activities for the children included: (1) Evaluations of English language development and Sign language proficiency; (2) Sign language instruction; and (3) a Baby-sitting and Play-Time program.

The program participants all were enthusiastic about this project, rating the overall workshop program as "very good" or

"good", with especially high ratings for the behavioral management discussions and for the sharing opportunities with deaf parents of older hearing children. All were highly motivated to continue the workshops or, at the very least, to continue meeting as a support group after the project was over.

As a complement to the workshop presentations, and as a means to disseminate information to a wider audience of deaf parents with hearing children, a series of 7 brochures were developed -- TIPS: Toward Improved Parenting Skills. Focusing on the same topics as the workshops, these included: (1) Behavior Management; (2) Self Esteem; (3) Your Child's Language Development; (4) Your Child's Speech Development; (5) The Deaf Parent in a Hearing Child's School; (6) Safety; and (7) Nutrition. In addition, a Family Literacy Lending Library was set up in the Center On Deafness, making a wider variety of books, pamphlets and videotapes available to deaf parents, both to help them in parenting and for their children to enjoy.

One key component of this project was the collection of data on the language development of hearing children who have deaf parents. As noted previously, the literature on this topic is both sparse and contradictory, leading to a need for further data on the issue. During this project, all 12 children were provided with a formal evaluation of their receptive and expressive English language skills by a certified Speech/Language pathologist from the Children's Hospital of Pittsburgh. The results of this evaluation indicated that, as a group, these hearing children of deaf parents had developed both receptive and expressive English language skills

-- both auditory comprehension and speech -- which were well within or above the normal range. Only one of the 12 children (8%) had delayed language development; and one other had a minor speech problem.

An evaluation of Sign language proficiency for 6 of the 12 children was also performed, revealing a wide range of Sign skills among these children. These results were related both to the children's ages and to differences in the parents' use of Sign, especially in interacting with their hearing children. The interaction patterns reported by the parents themselves indicated that over 60% of communication between these parents and their children included speech -- speech alone, speech plus Sign, or speech plus gesture. However, there were considerable differences among the parents in terms of communication preference, especially in their decisions as to which mode to use with and to encourage from their hearing children.

These results were analyzed in terms of the educational level, the literacy concerns of the participating deaf adults, and of the reported patterns of communication between these parents and their hearing children. The results were then compared with the available literature, especially in terms of the conditions which seem to be essential for the development of one or more languages.

Because the group of children evaluated here was small and because the parents were a self-selected group, who evidenced strong interest in improving literacy skills for their families, no extensive generalizations can be drawn. When added to the existing body of knowledge, this study would tend toward the following

conclusions:

(1) When given **some** interactive experience with spoken English language -- even if the primary caregiver has poor speech and/or uses grammatically non-standard English language -- hearing children of deaf parents can acquire appropriate English language skills within the normal developmental period. There is, at this time, no clear indication of exactly how much exposure or interaction is a necessary and sufficient condition. It is possible that the interest in literacy and the desire to provide English literacy input for their children, which each of the participating parents exhibited in the current project, may have been an important factor in the language performance levels shown by their children.

(2) If deaf parents use **some** Sign in communicating **with** their hearing children, even though they also use speech, the children will acquire some Sign skills -- both receptive and expressive. However, unless the deaf parents or primary caregivers use Sign language directly with their children and encourage them also to sign, their signing skills may develop very slowly, if at all. It is possible that, for young hearing children, whose major communication channel will be auditory, a second and visual language (e.g., Sign) will not develop without a direct need or motivation for its use.

These conclusions are encouraging in that a focus on literacy skills can prove beneficial for deaf parents of hearing children and for professionals who work with them. In fact, given a basic level of input and interaction, these children can and do develop

both standard English language skills and skill in ASL. Although the exact level required in either mode has yet to be determined -- and may well vary within individual families and children with different learning styles -- at least the parents can be made aware of the essential conditions for this language learning. Both **exposure** to the language and **direct interaction** in the language appear to be necessary. Programs in literacy, such as the one provided through this grant, can help deaf parents in developing procedures for assuring these conditions for their hearing children.

Recommendations

A key factor in the success of this project was the involvement of deaf community leaders in the identification of potential participants and needs. This assured that the needs addressed were, in fact, recognized as important by the persons receiving the services. It is recommended that any similar family literacy project engage the help of the intended beneficiaries to assure its lasting value.

The 6 Literacy Workshops were received with great enthusiasm by the participants, in part because of the opportunity they offered for the sharing of similar problems and potential solutions. One of the major recommendations, made unanimously by these deaf adults, was that a DP/HC support group should be made available on a continuing and regular basis. This request indicates that deaf parents with hearing children -- not only locally, but on a nationwide level -- have a definite need for support in coping with the cross-modality communication environment within their own

homes.

Observations from the current workshop series would indicate that the number of participants involved was ideal for this type of support -- small enough to allow frequent interaction and contribution to the discussion by all members, and yet large enough to provide an extended base of sharing. The fact that the participants all had children who were in the same general age range also may have helped cement the cohesiveness of this group. It has been suggested, both by the deaf adults and by other service providers, that future workshops should be offered for DP/HC families in which the children are older -- especially for those who are adolescents. A recommendation that can be made here is that family literacy workshops would appear to have real value, and could advantageously be offered for DP/HC families throughout the child-rearing stages. It may be more beneficial to provide separate workshops for families whose children are similar in age, especially to keep the size of the workshops from becoming unwieldy. However, it also may be beneficial for the parents of younger children to learn from the errors and successes of parents whose children are older. These considerations must be weighed by any provider of such services.

The collection of language development data provided both additional information of use for researchers and encouragement from the results. There is still a great need for definitive research on language development among hearing children of deaf parents, research which uses a large enough sample to account for variance due to such factors as parent education; parent communication modes and fluency therein; degree of exposure to hearing

language models; and interaction with these models. The amount of time to which hearing children of deaf parents are actually exposed to English language and the frequency of their interactions in spoken English needs to be documented and then correlated with their English language development, using a large and diverse enough group to rule out the many intervening variables. A similar study needs to be conducted re: ASL language development among these same children, with a comparison between the apparent "essential conditions" for each of the language systems. The current project can provide only a piece of the information needed on this unique population. The results of a more extensive study could provide knowledge of great value in understanding the development of language in general, and in the processes involved in learning languages with clearly different features and channels of transmission.

References

REFERENCES

Allen, T. (1986). Patterns of academic achievement among hearing-impaired students: 1974 and 1983. In A. Schildroth & M. Karchmer (Eds.), Deaf Children in America (pp. 161-206), San Diego, CA: College Hill Press.

Cicourel, A. & Boese, R. (1972). The acquisition of manual sign language & generative semantics, Semiotica 7, 225-256.

Clark, L. (1985). SOS! Help for Parents. Bowling Green, KY: Parents Press, 241 pages.

Day, C. A. (1975). Growing up with deaf parents. The Deaf American, (pp. 39-42).

Dunn, L. & Dunn, L. (1981). Peabody Picture Vocabulary Test-Revised. Circle Pines, MN: American Guidance Service.

Gardner, M. F. (1990). Expressive One-Word Picture Vocabulary Test. Navato, CA: Academic Therapy Publications.

Griffith, P. L. (1985). Mode-switching and mode-finding in a hearing child of deaf parents. Sign Language Studies 48, 195-222.

Jones, E., Strom, R. & Daniels, S. (1989). Evaluating the success of deaf parents. American Annals of the Deaf, 134, 312-316.

Jones, M. L. & Quigley, S. P. (1979). The acquisition of question formation in spoken English and American Sign Language by two hearing children of deaf parents. Journal of Speech and Hearing Disorders, 44, 196-208.

Klima, E. S. & Bellugi, U. (1966). Syntactic regularities in the speech of children. In J. Lyons and R. J. Wales (Eds.), Psycholinguistic Papers. Chicago, IL: Aldine, 183-208.

Maestasy, Y. & Moores, J. (1980). Early linguistic environment: Interactions of deaf parents with their infants. Sign Language Studies, 26, 1-13.

Mayberry, R. (1976). An assessment of some oral and manual-language skills of hearing children of deaf parents. American Annals of the Deaf, 121, 507-512.

Meadow, K., Greenberg, M., Erting, C. & Carmichael, H. (1981). Interactions of deaf mothers and deaf preschool children: Comparisons with three other groups of deaf and hearing dads. American Annals of the Deaf, 126, 454-468.

Newcomer, P. & Hammill, D. (1991). TOLD-P:2. Test of Language Development-Primary. Austin, TX: PRO-ED,

References - cont.

Prinz, P. M. & Prinz, E. A. (1981). Acquisition of ASL and Spoken English by a hearing child of a deaf mother and a hearing father: Phase II early combinatorial patterns. Sign Language, 30, 78-88.

Prinz, P. M. & Prinz, E. A. (1979). Simultaneous acquisition of ASL and spoken English. Sign Language Studies, 25, 283-995.

Rea, C. A., Bonvillian, J. D. & Richards, H. C. (1988). Mother-infant interactive behaviors: Impact of maternal deafness. American Annals of the Deaf, 133, 317-324.

Sachs, J., Bard, B. & Johnson, M. (1981). Language learning with restricted input: Case studies of two hearing children of deaf parents. Applied Psycholinguistics, 2, 33-54.

Sachs, J. & Devin, J. (1976). Young children's use of age-appropriate speech types in social interaction & role playing. Journal of Child Language, 3, 81-88.

Sachs, J. & Johnson, M. (1976). Language development in a hearing child of deaf parents. In van Raffler-Engel & Lebrun (Eds.) Baby Talk & Infant Speech, Amsterdam: Swets & Zeitlinger.

Schiff, N. B. (1979). The influence of deviant maternal input on the development of language during the preschool years. Journal of Speech and Hearing Research, 22, 581-603.

Schiff, N. B. & Ventry, I. M. (1976). Communication problems in hearing children of deaf mothers. Journal of Speech and Hearing Disorders, 41, 348-358.

Schiff-Myers, N. B. (1982). Sign and oral language development of preschool hearing children of deaf mothers. American Annals of the Deaf, 127, 322-330.

Sidransky, R. (1990). In Silence: Growing Up Hearing in a Deaf World. New York: St. Martin's Press.

Tebelman, L. (1989). Pathway for Parenting Video. Detroit, MI: Lutheran Social Services of Michigan.

Todd, P. (1975). A case of structural interference across sensory modalities in a second language learning word. Word, 102-118.

Trybus, R. J. & Karchmer, M. (1977). School Achievement Scores on Hearing-Impaired Children. American Annals of the Deaf, 122: pp. 62-69.

Walker, L. A. (1986). A Loss for Words. New York: Harper & Row.

References - cont.

Walker, L. A. (1987). The empty crib. Ladies Home Journal, 104, 76, 154-158.

Walter, V. (1990). The ties that bind. Gallaudet Today (Fall), 2-11.

Zimmerman, I., Steiner, V. & Pond, R. (1979). PLS: Preschool Language Scale. San Diego, CA: The Psychological Corp., Harcourt Brace Jovanovich, Inc.

Appendix

A. List of TIPS Newsletters
(separate enclosure)
B. Vitae

Appendix A

List of TIPS Newsletters
(separate enclosure)

TIPS: TOWARD IMPROVED PARENTING SKILLS

A Series of Brochures for: Deaf Parents of Hearing Children

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(1) **For Deaf Parents with Hearing Children: Behavior Management**

(2) **For Deaf Parents with Hearing Children: Self-Esteem**

(3) **For Deaf Parents with Hearing Children: Your Child's Language Development**

(4) **For Deaf Parents with Hearing Children: Your Child"s Speech Development**

(5) **The Deaf Parent in a Hearing Child's School**

(6) **For Deaf Parents with Hearing Children: Safety**

(7) **For Deaf Parents with Hearing Children: Nutrition.**

Note: The entire series of TIPS brochures is included as an attachment to this report.

Appendix B

Vitae

VITA: William N. Craig:

EDUCATIONAL BACKGROUND:

Ph.D.	University of Pittsburgh (Speech & Hearing Disorders)	1962
M.S.	Gallaudet University (Education of the Deaf)	1959
B.S.	Washington and Lee University (Government)	1955

CERTIFICATIONS AND LICENSES

Supervisor of Special Education programs (PA certificate)
Teacher of the Hearing Impaired (PA license and certification)
Audiologist (PA license)
Elementary and Secondary (CEASD - certificate)
Clinical Competence in Audiology (ASHA-certificate)

PROFESSIONAL EMPLOYMENT

Superintendent, Western PA School for the Deaf	1969-Present
Executive Director, Center On Deafness	1986-Present
Associate Professor, University of Pittsburgh	1965-69
Assistant Professor, Oregon College of Education	1962-65
Teacher of the Deaf, Kendall School for the Deaf	1958-59

PROFESSIONAL ACTIVITIES:

In addition to the university and college grants for professional specialist preparation, Dr. Craig wrote training and rehabilitation grants for assisting deaf people directly. A major RSA grant (No. RD-2723-S-68) was awarded to the University of Pittsburgh and Dr. Craig to develop demonstration programs for the deaf at Delgado College, Seattle Community College, and St. Paul Technical Vocational Institute. Each of these unique programs is operating today and has served as the nucleus for the development of some 74 other post-secondary programs in the United States. In 1973, Dr. Craig was the Project Director for the Counseling and Community Services Center of the Deaf grant funded in part through the Social and Rehabilitation Service (RD-2264), another model program. In addition, Dr. Craig has coordinated national, regional, and local meetings for educators, rehabilitation counselors and psychologists working with deaf people. These meetings have attracted a large number of professionals to Pittsburgh to present and discuss state-of-the-art procedures for working with the problems of deafness.

PUBLICATIONS:

Professional articles have appeared in such journals as the **American Annals of the Deaf**, **Rehabilitation Record**, **The Journal of Rehabilitation of the Deaf**, **Exceptional Children**, **The Volta Review**, and **Language**, **Speech and Hearing Services in Schools**. He has contributed chapters to four books. He has served as faculty director of programs in Education and Rehabilitation of the Deaf which were supported by the Rehabilitation Services Administration and the former Department of Health, Education and Welfare.

VITA: Helen B. Craig: Project Director

EDUCATIONAL BACKGROUND:

Ph.D.	University of Pittsburgh (Communications Research)	1968
M.A.	Willamette University, Salem, Oregon (Education)	1964
B.A.	University of Pittsburgh (Sociology & English)	1961

CERTIFICATION:

CED (Council on Education o/t Deaf): Professional Certif.
PA State Certif: Instructional II(Hearing-Impairment)(Speech)

PROFESSIONAL EMPLOYMENT:

Research Director	-- Western PA School for the Deaf	1970-present
Asst. Professor	-- University of Pittsburgh (Special Education & Rehab)	1969-1973
Instructor	-- Oregon College of Education	1964-1965
Teacher o/t Deaf	-- Western PA School for the Deaf	1959-1962

PROFESSIONAL ACTIVITIES -- include:
Editor: Reference Issue: American Annals of the Deaf, 1970-present;
Commissioner: PA Public TV Network Commission, 1976-present;
Presenter:(international/national/state conferences) on such topics as: cognitive development/strategies; curriculum; pragmatic language; parent/infant programming; hearing impairment and aging

PUBLICATIONS: -- over 50 professional articles, chapters, booklets re: deafness/hearing impairment, including:

Craig, H. B. & Garrity, R. P. (in press, 1991). The post-secondary transition: from school to independent living. In R. Nowell & E. Marschak (Eds.), Understanding deafness and the vocational rehabilitation process. Needham Heights, MA: Allyn & Bacon.

Craig, H. B. & Gordon, H. W. (in press, 1991). Specialized cognitive function among deaf individuals. In D. Martin (Ed.), Cognition, education, and deafness: Directions for research and instruction. Washington, DC: Gallaudet University Press.

Craig, H. B. & Gordon, H. W. (1988). Specialized cognitive function and reading achievement. Journal of Speech & Hearing Disorders, 53, 30-41.

Craig, H. B. & Stool, S. E. (1990). Otitis media in a school for deaf children: An 8-year study. Annals of Otology, Rhinology Laryngology, 99, (7), supplement 149.

Craig, H. B. & Holland, A. L. (1970). Reinforcement of visual attending in classrooms for deaf children, Journal of Applied Behavior Analysis, 3, 97-109.

PARTICIPANT/INSTRUCTIONAL MANUALS:

Craig, H. B. (1987, 1988, 1989). Instructional Manuals to accompany 5 nationally distributed videotape programs: e.g. "Promoting Positive Behavior and Interactions through Psychological Skills Training"; "Expanding Thinking Skills through Instrumental Enrichment"; Pittsburgh: Center On Deafness at WPSD.

Craig, H. B. & Garrity, R. P. (Eds.)(1990). Hearing impairment and aging: Participants' manual. Pittsburgh, PA: Center On Deafness at WPSD.

VITA: Rosemary Garrity

Educational Background:

Post-Masters Program	University of Pittsburgh, Pittsburgh, PA (Supervisory Certificate - 1982)
M.Ed.	University of Pittsburgh, Pittsburgh, PA Special Education--Deafness - 1971
B.A.	Mercyhurst College, Erie, PA Elementary Education - 1964

Certification:

Pennsylvania Supervisory II - Special Education
Pennsylvania Instructional II - Hearing-Impaired
Council on Education of the Deaf - Elementary and Secondary

Professional Employment:

Director, Center Programs: Center On Deafness, 1985 - present
Classroom & Consulting Teacher: Western PA School for the Deaf, Elementary, Junior High, Senior High 1966-1984

Professional Activities:

Member: Task Force - PA Dept. of Aging Task Force on Senior Citizen Centers (1988-present)
Coordinator: Western PA Deaf Senior Citizens Group (1985-present)
Member: Board of Directors of the Pittsburgh Coalition for Adult Literacy (1989-present)
Coordinator: Deaf Senior Citizens Meeting with Dr. Linda Rhodes (Summer, 1988)
Training Sessions on use of TDD: (Telecommunication Devices for Deaf), Eastern Area Agency on the Aging (1986)
Conference Chairperson - Eastern Regional Conference for Educators of the Hearing Impaired - 1986
Member: University of Pittsburgh Advisory Council in Special Education, Secretary 1983-85, President 1985

Presentations/Publications:

Numerous publications and presentations, including:
"Services Available to Deaf Senior Citizens". Presentations to Western PA Deaf Senior Citizens Group (1985-present)
"Providing Services to the Hearing-Impaired Adult at the Center On Deafness". Presentation to SHHH (Self Help for the Hard of Hearing). (1988)
"Overview on the Center On Deafness" for staff members of: Office of Vocational Rehabilitation: state-wide regional offices (1986-1989), Eye and Ear Hospital (1986-1989), School and Parent Groups - statewide (1986-89).

MONICA ANTHONY

EDUCATIONAL BACKGROUND:

B.S. Indiana University of Pennsylvania (IUP) -- Education of the Hearing-Impaired	1990 (Dec.)

CERTIFICATION:

Pennsylvania Instructional I - Hearing-Impaired

PROFESSIONAL EMPLOYMENT:

Adult Literacy Coordinator, Center On Deafness	1991-present
Workforce Literacy Job Accomodation, Center On Deafness	1991 (Jan.-Feb.)
Sign Language Instructor -- Children's Beginning Signs, Center On Deafness	1991 (Spring)
Sign Language Instructor, IUP	1989 (Spring)
Remedial Reading Tutor	1988-1989
Social Studies Tutor for Learning Disabled (IUP)	1988
Counselor: Camp Easter Seals	1987

PROFESSIONAL ACTIVITIES:

Student Teaching: Western Pennsylvania School for the Deaf	1990 (Fall)
American Sign Language Class: Gallaudet University in Washington, DC	1990 (Summer)
IUP Sign Language Class: Four semesters active member; two semesters Vice President	1988-1990

VITA

Mary Ann Stefko

Educational Background

Post Bachelors Program	Penn State University (Chemical Dependency Counseling) /99/.
Bachelor of Science	Penn State University Communication Disorders, 1986

Employment Data:

Communication Specialist	Center On Deafness 1987 to present
Elementary Communication Specialist	Western Pennsylvania School for the Deaf 1987 to present
Family Unit Staff	Marworth Treatment Center Summer, 1986
Summer Assistant	Lackawanna County Cooperative Extension Service Penn State University, 1984-1986

Professional Activities

Member: Verbotonal Society of the Americas
Member: PA Speech and Hearing Association
Member: N. Y. League for the Hard of Hearing
Member: Registry of Interpreters for the Deaf, Pittsburgh Chapter
Member: A. G. Bell Association
Member: Addictions Association of Pennsylvania
Member: PA Task Force On Women and Addictions

Certificates and Specialized Skills

Pennsylvania Instructional I - Hearing Impaired

Council on Education of the Deaf - Elementary and Secondary Levels

Verbotonal Society of the Americas - Demonstration/Trainer

Cognitive Laterality Testing and Training

Presentations

1. "Communication Options for the Hearing-Impaired Adult". Presented to MH/MR Workshop staff. March, 1987

2. "Alternative Communication Techniques". Presented to Allegheny CRR staff. September, 1987

3. "Overview of Amplification Options". Presented to Allegheny CRR staff. September, 1987

4. "Meeting the Needs of Hearing-Impaired People/Community Service Options". Presented to F.I.R.S.T., June, 1988

5. "Ramification of Communication Skills Therapy". Presented to Advisory Board Members, June 1988

6. "Overview On Deafness". Presented to Carnegie Mellon University students, September, 1988.

7. "Awareness and Ramifications of the Needs of Geriatric Hearing-Impaired Individuals". Presented to gifted students at Columbus Academy, September, 1988

8. "Pro-Social Interaction and Speech with Elementary School Students". Presented at the Verbotonal Society Meeting, April, 1989

9. "Pro-Social Communication with Post-Secondary Transitional Students". Presented at the Verbotonal Society Meeting, April, 1989

10. "Managing Hearing Loss in the Elderly". Presented as an in-service program for Citipark staff, July, 1989

11. "Managing the School to Work Transition" Presented to the Faculty of Ohio School for the Deaf, August, 1989

12. "Meeting the Needs of the Hearing Impaired Adult". Presented to the Self Help for the Hard of Hearing, Aspinwall, January, 1990

13. "Pro-Social Interaction and Speech in Elementary School Students". Presented at the PA Speech and Hearing Association Convention, April, 1990.

14. "Cultural Diversity: Exploring the World of the Deaf and Hearing Impaired". Presented to students at Carnegie Mellon University, May, 1990.

Consultations

Carnegie Mellon University
5/89 to Present

- Providing support services for Hearing-Impaired students in a college setting.
- Providing strategies for staff to accommodate Hearing-Impaired students.
- Presenting seminars for students to sensitize them to the needs of Hearing-Impaired peers.

Publications

"Communication Skills Therapy", Dimensions, Spring Issue, 1989

"Pro-Social Communication with Post-Secondary Transitional Students", Verbotonal Today, Vol. 4. June, 1989

Current Job Responsibilities

To provide Communication Skills Therapy for the development and/or improvement of areas, including: speech production, auditory discrimination, manual communication skills and speechreading. Specific training is provided focusing on developing pro-social interaction strategies for improved psycho-social development, academic and/or vocational planning. To administer the Cognitive Laterality Battery for assessment purposes.

Sign Language Training

Presented at the Center On Deafness for the general public, January, 1987, September, 1987, January, 1988, September, 1988, January, 1989, May, 1989, September, 1989, January, 1990, March, 1990, April, 1990

Presented at Carnegie Mellon University for students and staff on a semester basis, August, 1988, May, 1989, January, 1990, April, 1990

Presented at Pre School Institute to parents of hearing impaired children, June, 1987, June, 1988, June, 1989, April, 1990

VITAE

Cynthia L. Douglass

Position: Research Assistant

Western Pennsylvania School for the Deaf
300 Swissvale Avenue, Pittsburgh, PA 15218
412/371-7000

Fields of Specialization:

Language
Speech

Education:

Masters Program	University of Pittsburgh (Speech Pathology & Audiology)	1979-81
B.A.	University of Minnesota (German and English)	1961-65

Professional Employment:

Research Assistant	-- Western PA School for the Deaf Pittsburgh, PA	1974-present
Language Lab Coordinator	-- WPSD	1974-present
Pro-Social Behavior Tutor	-- WPSD	1986-87
German Tutor	-- WPSD	1983-84
Language Modelling Tutor	-- WPSD	1974-77
Tutor for G.E.D.	-- Youth Corps (NYC) Allegheny County	1971-74
Substitute Teacher	-- Pittsburgh Public Schools	1967-68
German Law Documents Reader - Library Asst.	-- University of MN	1966-67

Certifications:

Verbotonal Society of the Americas -- Instructional Level

Memberships:

Verbotonal Society of the Americas
Professional Association, Western PA School for the Deaf

Publications and Presentations:

Craig, H. and Douglass, C. (1976-1987) Deaf Children in Context: Interactive Enrichment Project. Narrative evaluation of projects designed and implemented with funding from the Education Consolidation and Improvement Act (ECIA) Chapter I, State Agency Program: Handicapped (or from preceding legislation, P.L.89-313)), through the Pennsylvania Department of Education.
Projects #'s:48-75036-02-960;48-76053-02-960;48-77063-02-960;48-79004-02-960;48-79129-02-960;48-70088-02-960;48-71073-02-984;48-72096-02-984;48-73114-02-984;48-74161-02-984;48-75116-02-984;50-6113-02-984.

Craig, H., Craig, W., and Douglass-Sehlin, C. (1975). Pittsburgh Auditory Tests, 1-10. Pittsburgh, PA: Western Pennsylvania School for the Deaf.

Douglass, C. (March 25, 1980). "Hearing Aid Project at WPSD". Presentation to class in Speech and Hearing Science, University of Pittsburgh.

Douglass, C. (June 12, 1980). "Comprehension of the Adjective Shift Transformation in a Population of Deaf Children." Paper presented to class in Speech and Hearing Science, University of Pittsburgh.

Douglass, C. (April 22, 1982). "Longitudinal Study: Nursery School Reverse Integration." Presentation to American Verbotonal Society. Pittsburgh, PA.

CURRICULUM VITAE

Charlotte Elisabeth Johnson
5421 Normlee Place
Pittsburgh, PA 15217-1115
Telephone: (412) 683-2585

EDUCATION

1960-61	Certificat d'Etudes Superieures University of Lille, France
1964	Licentiate of the College of Speech Therapists Trained at: Central School of Speech and Drama Eton Avenue, London N.W.3, England
1966	M.S., University of Pittsburgh Department of Speech Pathology and Audiology
1970	Certificate of Clinical Competency American Speech and Hearing Association Area: Speech Pathology
1976	Ph.D., University of Pittsburgh Department of Speech Pathology and Audiology Dissertation: "Language of Mothers and Children"
1978	Play Therapy Training Program Pittsburgh Psychoanalytic Center

ACADEMIC EXPERIENCE

1968-90	Clinical Instructor in Speech Pathology University of Pittsburgh Department of Speech Pathology and Audiology

PROFESSIONAL EXPERIENCE

1966-68	Research Assistant U.S. Office of Education Research Principal Investigator: George H. Shames, Ph.D. "Effects of Listening Instructions and Severity of Cleft Palate Speech on Listeners"

Sept. 1968 to July 1971
Speech Pathologist
Children's Hospital of Pittsburgh
125 DeSoto Street
Pittsburgh, PA 15213

Worked as a staff member in a multi-disciplinary professional team, specializing in diagnostic and therapeutic work with complex developmental communication disorders.

March 1972 to Aug. 1973
Chief - Speech Pathology
Allegheny General Hospital
320 East North Ave.
Pittsburgh, PA 15212

Responsible for developing and establishing new Speech Pathology program funded by Department of Pediatrics. Major emphasis on providing pediatric out-patient services but also developed an in-patient consultation and referral service, mostly concerned with adult aphasia.

Oct. 1973 to June 1975
Clinic Coordinator
Speech Clinic
Children's Hospital of Pittsburgh

July 1975 to July 1987
Associate Director
Department of Communication Disorders
Children's Hospital of Pittsburgh
Parkvale Building
Pittsburgh, PA 15213

In these latter positions functioned as the assistant administrator of a multi-disciplinary, family-centered professional team. Have undertaken management, supervision and a wide range of professional education responsibilities.

July 1987 to Present
Speech/Language Pathologist
Department of Communication Disorders
Children's Hospital of Pittsburgh
Parkvale Building
Pittsburgh, PA 15213

PROFESSIONAL MEMBERSHIPS - Page 3

British College of Speech Therapists

American Speech-Language-Hearing Association
Recipient A.S.H.A. Award for Continuing Education 1984
Served as Site Visitor for Professional Services Board 1985-88

Council for Exceptional Children
Division for Early Childhood
Division for Children with Communication Disorders

Pennsylvania Speech and Hearing Association
Committee for Public Information, 1978-1980
Committee for Peer Standard Review Organization, 1980
Chairperson: Program Committee for 25th Anniversary Convention, 1984
Co-Chairperson: Exhibits Committee for 28th Annual Convention, 1987

South Western Pennsylvania Speech and Hearing Association
President-elect, 1977
President, 1978
Nominations Committee, 1980
Program Committee, 1987
President-elect, 1989
President, 1990

PUBLICATIONS

Johnson, Charlotte E., Bitler, Carol A., and DiGaudio, Anna B., "Communication and Play" in The Publication, Vol. 4, No. 9, (1976), pp. 74-81.

Bloom, L. A., Bitler, Carol, Johnson, Charlotte E., and Christman, Karen L., Facilitating Communication Change: An Interpersonal Approach to Therapy and Counseling (Aspen Publications, Inc., Rockville, MD) 1986.

Johnson, Charlotte E., contributing author to Eds. Tittnich, E., Bloom, L. A., Schomberg, R. and Szekeres, Shirley F., "Facilitating Children's Language: Handbook for Child-Related Professionals" (Journal of Children in Contemporary Society, Vol. 21, Nos. 1/2) 1989.

Allegheny County Head Start
- Health Services Advisory Committee
  - Member 1980-82
  - Professional Chair 1982 to Present
- Central Policy Council
  - Member 1982-83

Community Nursing and Rehabilitation Services, Inc.
- Professional Advisory Committee
  - Member 1983-86
  - Chair 1986-88

Center On Deafness at the Western Pennsylvania School for the Deaf
- Advisory Board
- Member 1987 to Present

PRESENTATIONS:

Over 55 presentations and papers on early language development and language stimulation and on expressive arts and play therapy with communication disabled children.

M(ary) Virginia Swisher
5911 Howe Street, #9
Pittsburgh, PA 15232
Phone: (Home) 412/363-3147
Work: 412/648-7329

CURRENT STATUS: Assistant Professor, Program in Special Education, Department of Instruction and Learning, University of Pittsburgh

EDUCATION:

Degrees:

Ph.D., University of Washington, 1979-1982 (degree date, March 1983) Special Education (hearing impaired)

Dissertation: "The Representation of English in the Signing of Hearing Mothers to their Hearing Impaired Children," Supervisor, Dr. Sheila Lowenbraun

M.Sc., University of Edinburg, 1977-1978, Applied Linguistics

Thesis: "A Reading Comprehension Program for Hearing Impaired Children in a Resource Program," Supervisor, A. P. R. Howatt

M.A., University of Minnesota, 1970-1972 (education of the hearing impaired)

B.A., Oberlin College, 1959-1963, Major: History, Minor: German

Other educational experiences:

Towson State College, 1973, courses in education

University of Edinburg, 1966-1967, independent study (Scottish History, Gaelic)

Freie Universitaet Berlin, 1964-1965, fellowship study (German literature)

Assistant Professor, Program in Special Education, Department of Instruction and Learning, University of Pittsburgh, September 1985--

Courses taught:

Sign Language I
Auditory Management of Hearing Impaired Children
Language Development of the Hearing Impaired I
Language Development of the Hearing Impaired II
Practicum (supervision)
Advanced Seminar in Deafness
Research Trends in Deafness
Psychosocial Aspects of Deafness
Structure of Sign Languages (Honors College)
Seminar in First Language Acquisition

Project Coordinator, Early Identification and Appropriate Placement of Children Who Are Deaf-Blind, October, 1983 - August, 1985

Instructor, Language Development of Hearing and Hearing-Impaired Children, University of Washington, fall quarter, 1984

Project Coordinator, Integrated Educational/Leisure Time Model for Deaf-Blind Children and Youth, March, 1983 - August, 1983

Data Collector and On-Site Supervisor, Integrated Educational/ Leisure Time Model for Deaf-Blind Children and Youth, October, 1982 - March, 1983

Activities Coordinator, Personnel Assistance Grant for Inservice Training for Service Providers to Hearing Impaired, July, 1982 - March, 1983

Research Assistant, The Effects of Early Intervention on Language Development in Young Hearing-Impaired Children, University of Washington, September, 1981 - June, 1982

Teaching Assistant, University of Washington, Area of Special Education, September, 1979 - June, 1982
Courses: Exceptional Children: Survey
Teaching Language to the Deaf
Teaching Speech to the Deaf
Language Development of Hearing and Hearing-Impaired Children

Teaching of English, Inlingua School of English, Fabriano, Italy, 1976-1977

PROFESSIONAL EXPERIENCE (cont.) - Page 3

Teacher of Hearing Impaired, resource program, St. Lawrence-Lewis County Board of Cooperative Educational Services, St. Lawrence County, New York, 1973-1976

Editor, Mid-Atlantic Region Special Educational Instructional Center, George Washington University, Washington, DC, 1968-1969

Research Assistant, projects for handicapped, Cybernetics Research Institute, Washington, DC, 1967-1968

ACADEMIC HONORS AND FELLOWSHIPS

Fellowship for doctoral study, Special Education Programs, 1979-1980, 1980-1981, 1981-1982.

Fellowship for teacher training, Bureau of Education for the Handicapped, 1970-71.

Dankstipendium, Deutscher Akademischer Autauschdienst, 1964-1965.

Fellowship, Washington University, St. Louis, 1963-1964.

Dean's List, Oberlin College, 1962.

CERTIFICATION

Council on Education of the Deaf: Professional Certificate

New York State: Permanent Certificate: Nursery, Kindergarten, and Grades 1-6 and Special Classes of the Deaf

PUBLICATIONS

Approximately 20 publications on Language Learning and Sign Language.

PRESENTATIONS

Over 25 presentations on Sign Language and Visual Attending Skills.